

## COASTAL CONSERVANCY

Staff Recommendation  
December 6, 2012

### **HEALTHY LANDS & HEALTHY COMMUNITIES: ECOSYSTEM SERVICES-BASED PLANNING FOR CONSERVATION PROJECTS**

Project No. 12-052-01  
Project Manager: Kate Goodnight

**RECOMMENDED ACTION:** Authorization to disburse up to \$200,000 to the Resource Conservation District of Santa Cruz County to coordinate the *Healthy Lands & Healthy Communities Initiative* and to prepare economic and community benefit case studies of conservation projects in Sonoma, Santa Clara and Santa Cruz Counties to identify priority, multi-benefit conservation projects and their potential new funding sources.

**LOCATION:** Sonoma, Santa Clara and Santa Cruz Counties (Exhibit 1)

**PROGRAM CATEGORIES:** San Francisco Bay Area Conservancy and Integrated Coastal and Marine Resources Protection

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#### **EXHIBITS**

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Project Letters](#)

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#### **RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160-31165 and Section 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed \$200,000 (two hundred thousand dollars) to the Resource Conservation District of Santa Cruz County (the “RCDSCC”) to coordinate and to prepare at least three economic and community benefit case studies of conservation projects in Sonoma, Santa Clara and Santa Cruz Counties as part of the *Healthy Lands & Healthy Communities Initiative - Demonstrating the Economic Value of Natural Areas and Working Landscapes*, as more particularly described in the accompanying staff recommendation, subject to the condition that prior to the RCDSCC’s commencement of work, the Executive Officer of the Conservancy shall approve in writing a work program, schedule of completion, project budget, and any contractors to be employed for the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the November 10, 2011 Project Selection Criteria and Guidelines.
  2. The proposed authorization is consistent with the purposes and objectives of Chapter 4.5 of Division 21 of the Public Resources Code regarding the San Francisco Bay Area Conservancy.
  3. The proposed authorization is consistent with the purposes and objectives of Chapter 5.5 of Division 21 of the Public Resources Code regarding integrated coastal and marine resources protection.
  4. The proposed project is consistent with applicable local watershed management plans and water quality control plans.”
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#### **PROJECT SUMMARY:**

Staff recommends authorization to disburse up to \$200,000 to the Resource Conservation District of Santa Cruz County (RCDSCC) to coordinate and to prepare at least three in-depth case studies of the economic value and community benefits of conservation projects in Sonoma, Santa Clara and Santa Cruz Counties as part of the *Healthy Lands & Healthy Communities Initiative - Demonstrating the Economic Value of Natural Areas and Working Landscapes*. This initiative is a comprehensive ecosystem services-based planning effort to identify priority, multi-benefit conservation projects and potential new funding sources and mechanisms to pay for them.

Natural resource areas and working lands provide a variety of services and benefits to our communities, including clean, reliable drinking water; protection from natural hazards such as floods and coastal storm surges; carbon sequestration and climate change resiliency; long-term food security; pollination services; recreation and tourism; public health benefits, and many others. The economic value of these services, however, is rarely considered when funding, development, and/or policy decisions are made which affect these lands. The benefits can be quantified and monetized, providing values not only for the ecosystem services themselves, but the ripple effect of jobs and markets created around those services. Additionally, it is possible to quantify the costs avoided by relying on existing natural services versus replacing their functions with expensive infrastructure, which require annual maintenance and have limited lifespans. Internalizing the economic value of ecosystem services into land use decision-making will lead not only to wiser decisions, it could also result in new funding partners for conservation projects.

For example, New York water utilities have dedicated millions to conservation projects in the Catskill/Delaware river system, highlighting a case where the economic benefits of ecosystem preservation can incentivize new funding partners. The watershed supplies 1.4 billion gallons of water daily to 9 million New York City and upstate customers and is the largest unfiltered water supply in the country. The water utility agencies recognized the natural water filtration

services provided by an intact watershed ecosystem and determined that it was cheaper to spend \$100 million dollars per year on outreach and education, land management, land acquisition, and partnerships with watershed nonprofits and municipalities to protect the forested headwaters of the Catskill/Delaware Watershed than to build a water treatment plant costing \$6-10 billion, with an additional \$300 million per year in maintenance costs.

The *Healthy Lands, Healthy Communities Initiative - Demonstrating the Economic Value of Natural Areas and Working Landscapes* is intended to provide the foundation for the ecosystem services approach for three counties in California. It is being jointly launched by the RCDSCC, the Santa Clara County Open Space Authority, and the Sonoma County Agricultural Preservation and Open Space District with funding from the Gordon and Betty Moore Foundation and the S.D. Bechtel, Jr. Foundation.

The initiative will focus on developing and demonstrating new tools to better understand the economic value of natural systems in the counties of Santa Cruz, Sonoma and Santa Clara. By selecting a suite of ecosystem services to focus on, this analysis will evaluate conservation spending over the last 20 years and return on investment (ROI). Conservancy funds spent in these three counties will be assessed and the ROI information will provide valuable context for future funding requests. The evaluation methods developed in the course of this project may be useful for measuring the impact of Conservancy funding in other locations as well.

In addition to this “look back” on past conservation investment, the project will also “look forward” to model future investments and land-use decisions in light of both their economic and ecological benefits. While the specific economic analyses will focus on each of the three counties, the methods, metrics, and recommendations are expected to be applicable across the region, state, and beyond.

Outcomes of the initiative include:

- 1) Identification of key ecosystem services and natural capital assets in each of the three counties.
- 2) Dollar valuations for the ecosystem services provided by each of the three counties’ natural assets. These will be peer-reviewed, replicable analyses based on available data.
- 3) ROI analyses for conservation funding for the last 20 years in the three counties, as well as modeling for future investments, by identifying all economic values associated with potential protection and enhancement of ecosystems within a set of targeted demonstration watersheds.
- 4) Development of new alliances with non-traditional conservation partners such as infrastructure agencies, public health advocates, chambers of commerce, and others to identify multi-benefit, integrated conservation projects of mutual benefit.
- 5) Work with finance and water utility working groups to evaluate and pilot accounting advances to incorporate ecosystem services valuations and analyses into cost/benefit, ROI and lifespan analyses for proposed infrastructure projects to determine if conservation elements are viable project alternatives and/or complements.
- 6) Review local governmental and jurisdictional issues as they relate to ecosystem services and provide recommendations for future funding mechanisms, more effective

use of public trust capital expenditures, potential legislation and policy changes, and next steps for developing resilient, sustainable economies and healthy communities based on investment in natural capital assets.

- 7) New messaging and presentation tools for communicating initiative objectives and recommendations with the general public, potential partners, local and state officials and policymakers, funders, and others.

In order to enhance the effectiveness of the initiative, Conservancy funds will be used to develop at least one in-depth case study per county. Each case study will focus on a specific conservation project from an ecosystem services and economic analysis perspective. It will identify the project scope and goals, the range of beneficiaries and the economic value of those benefits, and the return on investment. Cost-avoidance features as a result of implementing the project will also be assessed.

These case studies will ground the countywide valuations with locally-explicit examples and will provide the level of detail necessary to develop the analytical tools for use in evaluating the cost/benefit and return on investment analyses for future stand alone conservation projects, as well as larger infrastructure projects with similar conservation components. Identifying both the traditional and non-traditional beneficiaries of the project will also assist with identifying potential new funding sources through possible match requests, user fees, etc. Additionally, the results of the case studies will help provide specific, compelling stories to aid in discussion with local constituents, decision makers, and funders to increase awareness and support for open space and working lands protection and conservation.

Conservancy funds will also be used to provide support for the coordination of the tri-county effort, including working with county project leads, stakeholder groups, consultants and peer reviewers, and local and state officials and agency staff. The coordinator will also assist with guiding the new partnerships in the identification of high priority projects, potential new funding sources and mechanisms, and screening of appropriate projects for inclusion in local and regional conservation efforts such as the Integrated Regional Watershed Management Program, Integrated Watershed Restoration Program for Santa Cruz County, Sustainable Communities Strategies, regional transportation planning, and other land acquisition and conservation strategic planning.

The Resource Conservation District of Santa Cruz County has successfully managed a number of Conservancy grants including the extremely complex IWRP Phase 1 and 3 grants which required dozens of subcontracts and hundreds of invoices for multiple projects, the grant to develop the Partners in Restoration Permit Coordination Program for Santa Cruz County, and the Tucker Ford Fish Passage Implementation grant, among others. It has demonstrated sound fiscal responsibility as well as advanced expertise in project management, stakeholder outreach, and partner collaboration, and is well suited to carry out the current project.

**Site Description:** The project will focus on case studies in Sonoma, Santa Clara and Santa Cruz Counties. Sonoma and Santa Clara Counties are part of the nine counties in the San Francisco Bay Area Conservancy, while Santa Cruz County is located along the Central Coast. Each county supports a mix of urban development, protected open space, and working lands, including agriculture, forestry, rangelands, and vineyards. All three counties are grappling with issues such as loss of agricultural and working lands; increased urban development pressures; reduction in intact riparian and watershed habitats; water supply

and quality concerns; increased flood control, fire risk and other impacts from climate change, including loss of biodiversity and interruption of migration corridors.

**Project History:** Conservancy staff has worked for a number of years with the Resource Conservation District of Santa Cruz County on the Integrated Watershed Restoration Program, a collaboration of federal, state and local resource and regulatory agencies to facilitate fish and wildlife habitat projects, wetland restoration, and water quality improvements in Santa Cruz, San Mateo and Monterey Counties. *The Healthy Lands, Healthy Communities* initiative grew partly out of a desire to find a more stable funding source for the IWRP restoration projects. The RCD developed the larger scope of the initiative in collaboration with the Sonoma County Agricultural Preservation and Open Space District and the Santa Clara County Open Space Authority. The three entities approached Conservancy staff for additional funding to supplement the foundation grants and to help with liaising between other state agencies.

### PROJECT FINANCING

<b>Coastal Conservancy</b>	\$200,000.00
<b>Gordon and Betty Moore Foundation</b>	\$750,000.00
<b>S.D. Bechtel, Jr. Foundation</b>	<u>\$110,000.00</u>
<b>Total Project Costs</b>	\$1,060,000.00

The proposed source of Conservancy funds for this authorization is an appropriation to the Conservancy from Proposition 84, “Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.” These funds are allocated to the Conservancy for development, restoration and protection of coastal and San Francisco Bay Area land and water resources. In addition, Proposition 84 funds may be used to finance planning necessary for the successful design, selection, and implementation of such projects. This authorization is consistent with the funding source because the project will serve to protect coastal watershed lands of the state for future generations by developing plans for Santa Cruz, Santa Clara and Sonoma Counties that make recommendations for future land acquisition, working land preservation, and habitat restoration projects. The proposed project is consistent with the Conservancy’s enabling legislation, as discussed in the “Consistency with Conservancy’s enabling legislation” section below.

Proposition 84 also requires that for potential projects that include acquisition or restoration for the purpose of natural resources protection, the Conservancy give priority to potential projects that meet one or more of the criteria specified in Section 75071. By identifying high priority areas and projects that will contribute to the long-term protection of open space, wildlife corridors, sensitive habitats, watersheds, and agricultural lands, the proposed project satisfies Section 75071(a), (b), and (c) regarding prioritizing habitat linkages between protected areas, long-term protection and improvement of the water and biological qualities of watersheds, and preserving under-protected major habitat types.

### CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

This project would be undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31165, to address resource and recreational

goals in the San Francisco Bay Area, and pursuant to Chapter 5.5, Section 31220, regarding Integrated Coastal and Marine Resources Protection.

Under Section 31162(b) and (d), the Conservancy may undertake projects and award grants to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of importance in the San Francisco Bay Area, including for recreational and educational purposes. The proposed authorization will assist the Conservancy and its project partners in meeting these goals by analyzing feasible financial mechanisms for ensuring the long-term viability of Sonoma and Santa Clara County watersheds and working lands which serve important open space and habitat functions, and which will also lead to projects related to tourism, recreation, and environmental education.

Section 31220(a) authorizes the Conservancy to undertake and award grants for projects that meet one or more of the criteria of Section 31220(b). Consistent with §31220(b)(2),(3) (6) and (7), respectively, the project will protect and restore fish and wildlife habitat within coastal watersheds, reduce the threats to coastal and marine fish and wildlife, protect riparian and sensitive watershed lands, and reduce the impact of population and economic pressures on coastal and marine resources by developing tools and plans to identify and promote improved land use and multi-benefit projects that focus on conserving and protecting open spaces, watersheds, and agricultural and working lands.

Consistent with §31220(a), staff has consulted with State Water Resources Control Board (“SWRCB”) in the development of the project to ensure consistency with Chapter 3 (commencing with §30915) [Clean Beaches Program] of Division 20.4 of the Public Resources Code.

Consistent with §31220(c), the project is consistent with local watershed management plans (*see* “Consistency with Local Watershed Management Plan/State Water Quality Control Plan” section, below). The project does not include a monitoring component per §31220(c) because the project does not include construction.

#### **CONSISTENCY WITH CONSERVANCY’S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

The project will result in three separate case study plans for Sonoma, Santa Clara and Santa Cruz Counties that identify high priority open space, working lands and habitat resource areas; economic valuations of the ecosystem services in each county; and recommendations for future land protection, working land preservation, and habitat restoration projects.

Consistent with **Goal 5, Objective A; Goal 6, Objective A; and Goal 10, Objective I** of the Conservancy’s 2007 Strategic Plan, the proposed project will prepare three case study plans and identify projects for restoration of coastal and San Francisco Bay Area watersheds and fish and wildlife habitat.

Consistent with **Goal 7, Objective B** of the Conservancy’s 2007 Strategic Plan, the proposed project will serve to help in fostering the long-term viability of coastal working lands by developing two plans to sustain San Francisco Bay Area agriculture, forest lands, ranch lands and vineyards in conjunction with protection of wildlife habitat and water quality.

Consistent with **Goal 9** of the Conservancy's 2007 Strategic Plan, the proposed project will identify high priority resources areas for the Bay Area Program, including projects that protect and restore natural habitats and other open space lands of regional significance.

### **CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on November 10, 2011, in the following respects:

#### **Required Criteria**

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** Senators Joe Simitian and Noreen Evans; Assemblymembers Bill Monning, Wes Chesbro, Jared Huffman, Michael Allen, Rich Gordon, and Jim Beall; California Department of Water Resources; California Department of Conservation; Santa Cruz County Board of Supervisors; Sonoma County Board of Supervisors; Santa Clara County Board of Supervisors; Sonoma County Agricultural Preservation and Open Space District; Santa Clara County Open Space Authority; Sonoma County Water Agency; Land Trust of Santa Cruz County; Sonoma Land Trust; the Pepperwood Preserve/Pepperwood Foundation (Exhibit 2).
4. **Location:** The project will focus on land and water resource protection in Santa Clara, Santa Cruz and Sonoma Counties. Santa Clara County is in the San Francisco Bay region, Santa Cruz County is located in the Central Coast and Sonoma County is both in the North Coast and San Francisco Bay region (Exhibit 1).
5. **Need:** Due to increasing development pressures and dwindling funding for conservation, it is imperative to educate both the general public and policymakers regarding the economic value in protecting open space, watersheds, and working lands. By making a clear case for the role healthy ecosystems play in maintaining sustainable communities and economies, there is an opportunity to increase support and develop new funding mechanisms for land and water protection.
6. **Greater-than-local interest:** While the economic analyses of ecosystem services developed through this project will focus on the three identified counties, the methods, metrics, and recommendations are expected to be applicable across the region, state and beyond.
7. **Sea level rise vulnerability:** The case studies will evaluate sea level rise as an economic issue where applicable.

#### **Additional Criteria**

8. **Urgency:** The project will provide important data for upcoming ballot measures to support conservation efforts in Santa Clara and Sonoma Counties. Additionally, the momentum already generated by the RCDSCC, along with its partners the Sonoma County Agricultural Preservation and Open Space District, the Santa Clara Open Space Authority, Earth Economics, the Moore and Bechtel Foundations, state and local agencies, and advisory committees made up of leaders in multiple fields with Bay Area and statewide leaders is critical to the proposed project's success. Without the Conservancy support, the successful timing for this opportunity may be lost.
9. **Leverage:** See the "Project Financing" section above.
10. **Conflict resolution:** By demonstrating the value of healthy watersheds, open spaces, and agricultural and working lands to local communities and economies, the project will promote better land use decisions and infrastructure projects that lead to sustainable communities and protected natural resources.
11. **Innovation:** The project will provide an innovative model for demonstrating the economic value in protecting and conserving open space, agriculture and natural resources; developing tools to incorporate resource protection into feasibility analyses for traditional infrastructure projects; and investigating new governance structures and funding mechanisms to encourage sustainable communities and ecosystems.
12. **Readiness:** The RCDSCC, along with its partners, namely the Sonoma County Agricultural Preservation and Open Space District, the Santa Clara Open Space Authority, Earth Economics, the Moore and Bechtel Foundations, state and local agencies, and advisory committees made up of leaders in multiple fields, are prepared to begin immediately.
13. **Cooperation:** The project is a collaboration between the Resource Conservation District of Santa Cruz County, the Sonoma County Agricultural Preservation and Open Space District, the Santa Clara Open Space Authority, Earth Economics, the Moore and Bechtel Foundations, state and local agencies, and advisory committees made up of leaders in multiple fields.
14. **Vulnerability from climate change impacts other than sea level rise:** The project will include discussion of the value of open space, forested watersheds, and wildlife corridors in providing resiliency and adaptation for land and water-dependent wildlife and human uses in the face of climate change.
15. **Minimization of greenhouse gas emissions:** The project does not have the potential for greenhouse gas emissions. The project case studies may investigate and promote carbon sequestration projects, as well as hiking and biking trails, to help offset regional greenhouse gas emissions.

#### **CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

The project includes coastal lands and watersheds in Santa Cruz and Sonoma Counties. Santa Clara County is not located on the coast and does not have a Local Coastal Program (LCP).

By demonstrating the economic value and multiple benefits in conserving and protecting agricultural and working lands, open space, and natural resources and by developing related



conservation projects, the proposed project will help to satisfy several of the priorities listed in the Santa Cruz and Sonoma LCP goals, objectives, and policies described below:

Santa Cruz County's 1994 certified General Plan and LCP

**Goal – Open Space Protection:** To retain the scenic, wooded, open space, and rural character of Santa Cruz County; to provide a natural buffer between communities; to prevent development in naturally hazardous areas; and to protect wildlife habitat and other natural resources. P. 5-2.

**Goal – Resource Utilization:** to provide for the conservation and environmentally sound and orderly economic use of renewable and non-renewable natural resources to provide employment and income in Santa Cruz County while minimizing impacts to adjoining land uses and the environment. P. 5-2

**Objective 5.1:** To maintain the biological diversity of the County through an integrated program of open space acquisition and protection, identification and protection of plant habitat and wildlife corridors and habitats, low-intensity and resource compatible land uses in sensitive habitats and mitigations on projects and resource extraction to reduce impacts on plant and animal life. (p. 5-3)

**Objective 5.2:** Preserve, protect and restore all riparian corridor and wetlands for the protection of wildlife and aquatic habitat, water quality, erosion control, open space, aesthetic and recreational values and the conveyance and storage of flood waters. (p. 5-9)

**Objective 5.5a:** To protect and manage the watershed of existing and future surface water supplies to preserve the quality and quantity of water produced and stored in these areas to meet the needs of County residents, local industry, agriculture, and the natural environment. (p. 5-17)

Sonoma County LCP (2001) & General Plan 2020 (2008, amended 2010):

**Goal OSRC-8:** Protect and enhance Riparian Corridors and functions along streams, balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, flood control, bank stabilization, and other riparian functions and values. (p. OS-32)

**Goal OSRC-12:** Preserve, sustain and restore forestry resources for their economic, conservation, recreation, and open space values. (p. OS-40)

**Goal WR-3:** Encourage public water systems and their sources to provide an adequate supply to meet long term needs that is consistent with adopted general plans and urban water management plans and that is provided in a manner that maintains water resources for other water users while protecting the natural environment. (p. WR-19)

**Goal WR-6:** Improve understanding, valuation and sound management of the water resources in Sonoma County's diverse watersheds.

**Policy AR-1e:** Encourage and support farms and ranches, both large and small, that are seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil in order to bolster the local food economy, increase the viability of diverse family farms and improve the opportunities for farm workers. (p. AR-3)

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/  
STATE WATER QUALITY CONTROL PLAN:**

There are several watershed management plans that are applicable to this tri-county project area, specifically the North Coast, Russian River, Bay Area, Santa Cruz, and Pajaro Integrated Regional Watershed Management Plans. The proposed project will further the objectives of these plans by promoting preservation of healthy watersheds; conservation of water supply, water quality, and natural habitats; reduction in flood hazards; resiliency to climate change, and other related resource protection activities. By working with local, regional and state decision makers, businesses, and constituents to identify the environmental and economic benefits of multi-use conservation projects, the proposed project also furthers these plans by contributing to economic, social and environmental sustainability; fostering coordination, collaboration and communication between regional partners; achieving greater efficiencies; and building public support for vital projects.

**COMPLIANCE WITH CEQA:**

As a planning activity for possible future actions that have not been approved, adopted, or funded, this project is exempt from California Environmental Quality Act (CEQA) review under 14 California Code of Regulations Section 15262. Upon authorization, staff will file a Notice of Exemption.